

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (original) An isolated Nurrl gene including one or more mutations selected from the group consisting of Met97Val (M97V), His103Arg (H103R), Tyr121del (Y121del) and Tyr122del (Y122del), or a functional fragment or variant thereof.
2. (original) A fragment according to claim 1, which comprises the exons of the Nurrl gene.
3. (currently amended) A fragment according to claim 1 ~~or 2~~, which comprises exon 3 of the Nurrl gene.
4. (currently amended) A fragment according to ~~any one of claims 1-3~~ claim 1, which comprises the mutation Met97Val.
5. (currently amended) A fragment according to ~~any one of claims 1-3~~ claim 1, which comprises the mutation His103Arg.
6. (currently amended) A fragment according to ~~any one of claims 1-3~~ claim 1, which comprises the mutation Tyr121del or Tyr122del.
7. (currently amended) A nucleic acid capable of specifically ~~hybridising~~ hybridizing to a gene or a fragment according to any one of claims 1-6.
8. (currently amended) A vector comprising a nucleic acid according to any one of ~~claim 1-7~~ claims 1-6.

9. (currently amended) A recombinant cell ~~comprising~~ carrying a vector according to claim 8.
10. (currently amended) An isolated cell carrying one or more mutations in the Nurrl gene selected from the group consisting of Met97Val (M97V), His103Arg (H103R), Tyr121del (Y121del) and Tyr122del (Y122del) in its genome.
11. (currently amended) A cell culture comprising cells according to claim 9 ~~or 10~~, which cells are immortalized cells, ~~such as mammalian cells~~.
12. (currently amended) A protein or a peptide encoded by a gene or a gene fragment or variant according to ~~any one of claims 1-7~~ claim 1.
13. (original) A protein or peptide according to claim 12, which includes a Val residue in the position corresponding to amino acid no. 97 of the wild type Nurrl protein.
14. (original) A protein or peptide according to claim 12, which includes an Arg residue in the position corresponding to amino acid no. 103 of the wild type Nurrl protein.
15. (original) A protein or peptide according to claim 12, which does not include any Tyr residue in the position corresponding to amino acid no. 121 or 122 of the wild type Nurrl protein.
16. (currently amended) A method of screening for pharmaceutically active substances, wherein a ~~nucleotide~~ nucleic acid according to any one of claims ~~1-7~~ 1-6 or a protein or peptide according to any one of claims 12-15 is

used as a lead compound to identify substances capable of altering the biological effect of said ~~nucleotide~~ nucleic acid, or protein or peptide.

17. (currently amended) A ~~method for the production of a~~ pharmaceutical composition comprising a substance identified by the method according to ~~of~~ claim 16 and ~~furthermore mixing the substance identified in combination~~ with a pharmaceutically acceptable carrier.
18. (original) An antibody raised against a protein or peptide according to any one of claims 12-15.
19. (currently amended) A transgenic, non-human animal, ~~such as a mouse or a rat, comprising~~ containing a gene or a gene fragment or variant according to any one of claims ~~1-7~~ 1-6.
20. (currently amended) A transgenic mouse ~~comprising which~~ has a mutation in the chromosome corresponding to the human chromosome 2q22-23 of said mouse, or an ancestor thereof, introduced at an embryonic stage such that said transgene replaces an endogenous ~~allele~~ allele resulting in said mutation, which transgenic mouse ~~comprises~~ has one or more mutations selected from the group consisting of Met97Val (M97V), His103Arg (H103R), Tyr121del (Y121del) and Tyr122del (Y122del).
21. (canceled)
22. (canceled)
23. (canceled)

24. (currently amended) ~~Use of an antibody according to claim 18 or a substance according to claim 17 or 22 in the manufacture of a medicament~~ A method for the treatment and/or prevention of a psychotic conditions, such as schizophrenia and/or manic depressive disorder, which comprises administering to a host in need of such treatment a therapeutically affective amount of a pharmaceutical composition according to claim 17.
25. (currently amended) A pharmaceutical ~~preparation~~ composition comprising an antibody according to claim 18 ~~or a substance according to claim 17 or 22 together in combination with~~ with a pharmaceutically acceptable carrier.
26. (currently amended) A method of detecting the presence of a mutation in exon 3 of the Nurrl gene, which mutation is selected from the group consisting of Met97Val, His103Arg, Tyr121del and Tyr122del, said method comprising obtaining a biological sample from a mammalian, ~~such as a human,~~ subject and analyzing said sample for said mutation.
27. (currently amended) A method according to claim 26, wherein the biological sample is analyzed by isolating DNA from said sample, amplifying said DNA, ~~hybridising and~~ hybridizing said DNA to a labeled oligonucleotide probe that spectifically hybridizes to mutant DNA containing a G as the first base of codon no. 97; a G as the second base of codon no. 103; or a deleted TAC in codon no. 121 or 122, or to the close vicinity of said DNA.
28. (currently amended) A kit for performing the method according to claim 26 or 27, which kit comprises:

~~a-~~ a) reagents for amplification of one or more of the mutated sites; and/or

~~b-~~ b) enzymes for specific cleavage of DNA; and

~~c-~~ c) optionally suitable labels.

29. (currently amended) A method of treating ~~and/or~~ preventing a condition associated with schizophrenia and/or manic depression in a patient in need of ~~therapy~~ such treatment, wherein a mutation in exon 3 of the Nurr1 gene is corrected, which mutation is selected from the group consisting of Met97Val, His103Arg, Tyr121del and Tyr122del.
30. (original) A method according to claim 29, wherein the DNA of one or more of said mutations is replaced by DNA having the native, non-mutated base sequence using a vector suitable for transfecting the patient.
31. (currently amended) A method according to claim 29, wherein cells ~~comprising~~ carrying the native, non-mutated base sequence in the positions corresponding to one or more of said mutations are introduced in said patient.
32. (new) A vector comprising a nucleic acid according to claim 7.
33. (new) A recombinant cell carrying a vector according to claim 32.
34. (new) A cell culture comprising cells according to claim 10, which cells are immortalized cells.

35. (new) A method for the treatment of a psychotic condition, which comprises administering to a host in need of such treatment a therapeutically effective amount of a pharmaceutical composition according to claim 25.
36. (new) A method according to claim 24, wherein the condition is schizophrenia or manic depressive disorder.
37. (new) A method according to claim 35, wherein the condition is schizophrenia or manic depressive disorder.